

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF BACTERIOLOGY  
BERKELEY 4, CALIFORNIA

Oct. 22, 1952

Dear Joshua -

I'm spending my 26th birthday nursing a stinking cold at home, which provides a good opportunity for catching up on correspondence.

Sy Pomper (who is here for a year on a post-doctoral fellowship) has started to work with the purples, assisted by Martha. He is so overwhelmed with teaching & other academic soul-work that I don't expect to do much myself until after Christmas. It turns out that Rhodospirillum rubrum is not too easy to handle. It doesn't grow happily on a streaked plate, and the best method for counts & single colony isolations appears to be incorporation of the inoculum in an agar overlay, which presumably gives some protection from high  $O_2$  concentrations, as well as the necessary moisture. Growth is relatively slow under the best conditions yet devised; it takes approx 4 days to get easily visible colonies on illuminated plates. We don't know whether this reflects long lags or long generation times, but it is clear that adaptation to dark growth requires very different periods with different strains. There may be selective factors at work in this case, of course. Since we have to work out the details of cultivation & general physiology in any case, I suggest that you defer genetic studies until we can let you know a bit more about optimal conditions and about suitable strains (the strain differences appear to be considerable). Sy has run a few cepts with streptomycin, but appears to have succeeded only in making the organism highly resistant: right colonies are still well pigmented.

Many thanks for the fine picture of Sol.

Best wishes to you both,

~~Roger~~

Roger